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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,600

02/05/2007

Olaf Gawer

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23405

7590

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EXAMINER

MCDONALD, RODNEY GLENN

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/577,600	Applicant(s) GAWER ET AL.	
	Examiner Rodney G. McDonald	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/27/06, 11/14/08</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4 and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Hartig (U.S. PGPUB. 2006/0048708 A1).

Regarding claim 1, Hartig teach a vacuum coating system for coating elongate substrates. (Paragraph 0024, 0025) The coating system having at least one coating section and at least one pump section. (Paragraphs 0024, 0025) At least one magnetron in an arrangement as a sputter down variant above a substrate, the variant having a target surface opposite an upper side of the substrate “and/or” an arrangement as a sputter-up-variant below the substrate, the sputter up variant having a target surface opposite a lower side of the substrate. (Figs. 1, 6, 7; Paragraphs 0024-0027, 0031, 0042, 0057, 0063) A transport device wherein the transport device is arranged in a divided manner on a drive plane and on a transport plane, the drive plane being arranged in such a manner that in the sputter up variant an underside of a magnetron body containing the magnetron lies above the drive plane. (Figs. 1, 3, 6, 7; Paragraph 0026, 0027, 0028, 0063)

Regarding claim 4, Hartig teach drive elements of the drive plane are encased by a conveyor belt 144 which acts as a flow resistance. (Paragraph 0031)

Regarding claim 7, Hartig teach the connection for power transmission from the drive plane to the transport plane is arranged in a coating section. (Fig. 6)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig (US PG PUB 2006/0048708 A1).

The difference not yet discussed is where the transport elements of the transport system can be disconnected from the drive system and removed without impairing transmission of drive power to the substrate. (Claim 2)

Regarding claim 2, Hartig show in Fig. 1 rollers as transport elements that can be removed disconnected from the drive system and removed without impairing transmission of the drive power to the substrate. (See Fig. 1)

The motivation for utilizing the features of Hartig is that it allows for transporting the substrate. (See Abstract)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the features of Hartig because it allows for transporting the substrate.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig '708 as applied to claim 3 above, and further in view of Hartig (US PG PUB 2004/0163945 A1).

Hartig '708 is discussed above and all is as applies above. (See Hartig '708 discussed above)

The difference between Hartig '708 and the present claims is that the magnetron being connected to fastening elements that laterally extend from a top of the vacuum coating system alongside the substrate as far as the magnetron body is not discussed.

Regarding claim 3, Hartig '945 teach in Fig. 3 supporting the magnetron from fastening elements laterally extending from a top of the vacuum coating system alongside the substrate. (See Fig. 3)

The motivation for utilizing the features of Hartig '945 is that it allows for rotating the cathode. (Paragraph 0070-0072)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have utilized the features of Hartig because it allows for rotating the cathode.

Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hartig (US PG PUB 2006/0048708 A1) in view of Szczyrkowski et al. (U.S. Pat. 6,168,698), Bjornard et al. (U.S. Pat. 5,489,369) and Ishii et al. (U.S. Pat. 4,949,669).

Hartig '708 is discussed above and all is as applies above. (See Hartig '708 discussed above)

The differences between Hartig '708 and the present claims is that mutually corresponding suction openings being arranged in a coating section and a pump section above and below the transport plane is not discussed (Claim 5) and a vacuum pump arranged below the transport plane in a pump section is not discussed (Claim 6).

Regarding claim 5, Szczyrkowski et al. teach providing coating sections and pump sections. The pump section contains pump openings above the transport plane. (See Figs. 1, 2; Column 4 lines 30-37) Bjornard et al. teach providing suction openings above and below the transport plane. (Column 6 lines 7-20; Column 8 lines 64-68) Ishii et al. teach providing exhaust above and below the transport plane. (Column 5 lines 3-22)

The motivation for utilizing the features of Szczyrkowski et al. is that it allows for operating different coating zones with different gases. (Column 3 lines 56-63)

The motivation for utilizing the features of Bjornard et al. is that it allows for minimizing contaminants from the deposition environment. (See Abstract)

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The motivation for utilizing the features of Ishii et al. is that it allows for controlling process gas distribution. (Column 1 lines 60-66)

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Hartig '708 by utilizing the features of Szczyrkowski et al., Bjornard et al. and Ishii et al. because it allows for operating different coating zones with different gases, minimizing contaminants from the deposition environment and controlling process gas distribution.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney G. McDonald whose telephone number is 571-272-1340. The examiner can normally be reached on M-Th with every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rodney G. McDonald/
Primary Examiner, Art Unit 1795

Rodney G. McDonald
Primary Examiner
Art Unit 1795

RM
April 1, 2010